

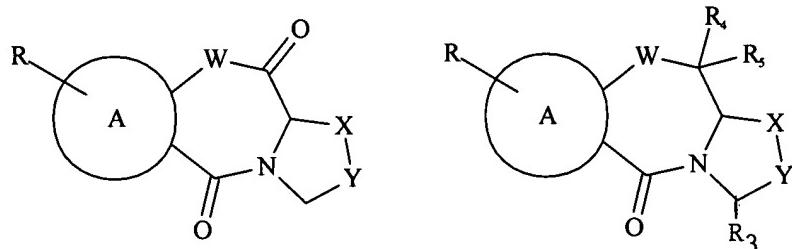
**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-28 (canceled)

Claim 29 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof:



wherein A is thiazole, benzene, or naphthalene, pyridine, pyrimidine, pyrazine, or quinoline;

R is one or more of halogen or NO<sub>2</sub>;

X-Y is CH<sub>2</sub>-S, S-CH<sub>2</sub>, CH<sub>2</sub>-O, CH<sub>2</sub>-S(O), S(O)-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>, or CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>;

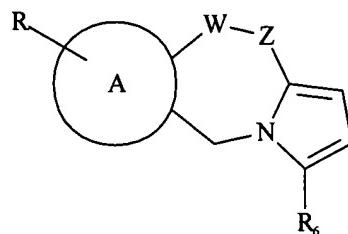
R<sub>3</sub> is H or phenyl:

R<sub>4</sub> is H or hydroxy;

R<sub>5</sub> is H, phenyl, -alkyl-NH<sub>2</sub>, -NH-alkyl, or -N(alkyl)<sub>2</sub>; and

W is S or O

or wherein the compound is



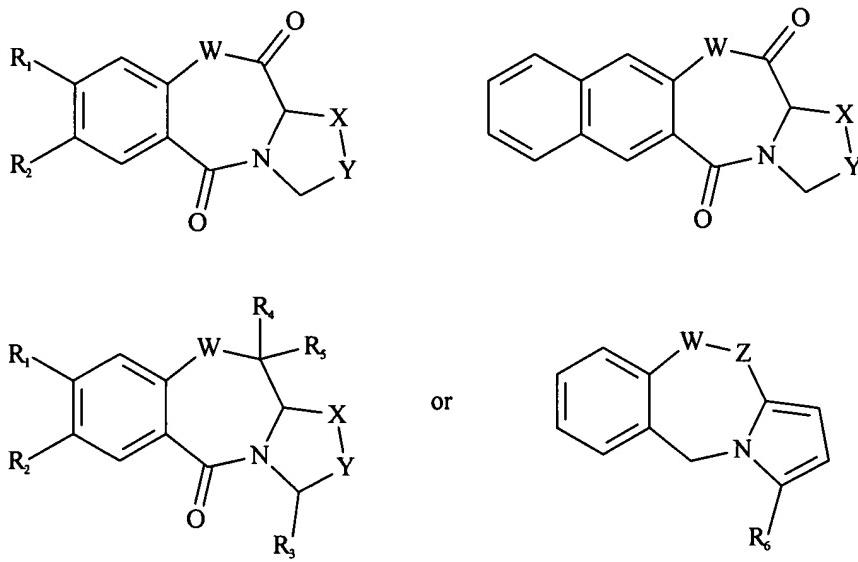
wherein

A is thiazole, benzene, or naphthalene, pyridine, pyrimidine, pyrazine, or quinoline; and R is one or more of halogen or NO<sub>2</sub>;

R<sub>6</sub> is H, unsubstituted alkyl or amine, or alkyl or amine substituted with at least one substituent selected from halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, acyloxy, hydroxy, mercapto, carboxy, aryloxy, aryl, arylalkyl, heteroaryl, amino, alkylamino, dialkylamino, morpholino, piperidino, pyrrolidin-1-yl, or piperazin-1-yl; W is S; and

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>.

Claim 30 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



wherein

X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, CH<sub>2</sub>-S(O), or CH<sub>2</sub>CH<sub>2</sub>;

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>;

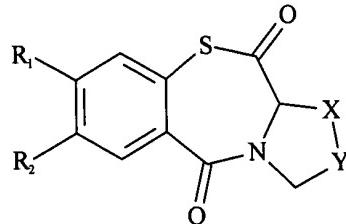
W is S or O;

R<sub>1</sub> is H, halogen, lower alkyl, lower alkoxy, or NO<sub>2</sub>;

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;

R<sub>3</sub> is H;  
R<sub>4</sub> is hydroxy or H;  
R<sub>5</sub> is phenyl or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>; and  
R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>,  
provided that R<sub>1</sub> and R<sub>2</sub> are not both H or not both alkoxy.

Claim 31 (original): The compound of claim 30, wherein the compound is

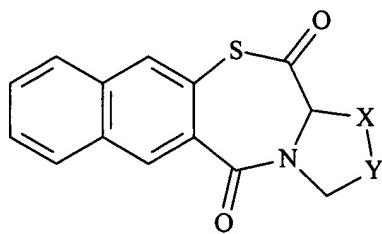


and R<sub>1</sub> is H or NO<sub>2</sub>;  
R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;  
provided that R<sub>1</sub> and R<sub>2</sub> are not both H or not both alkoxy.

Claim 32 (previously presented): The compound of claim 30, wherein

R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is S-CH<sub>2</sub>; or  
R<sub>1</sub> is H, R<sub>2</sub> is Br, X-Y is S-CH<sub>2</sub>; or  
R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is S-CH<sub>2</sub>; or  
R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is CH<sub>2</sub>-S; or  
R<sub>1</sub> is H, R<sub>2</sub> is Br, X-Y is CH<sub>2</sub>-S; or  
R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is CH<sub>2</sub>-S; or  
R<sub>1</sub> is NO<sub>2</sub>, R<sub>2</sub> is H, X-Y is CH<sub>2</sub>-S; or  
R<sub>1</sub> is H, R<sub>2</sub> is OCH<sub>3</sub>, X-Y is CH<sub>2</sub>-S; or  
R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is S(O)-CH<sub>2</sub>; or  
R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is CH<sub>2</sub>-S(O); or  
R<sub>1</sub> is H, R<sub>2</sub> is OCH<sub>3</sub>, X-Y is CH<sub>2</sub>-S(O).

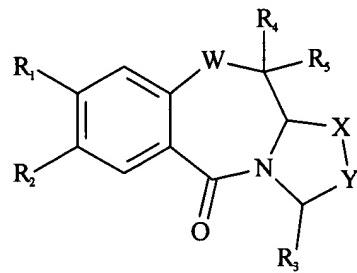
Claim 33 (original): The compound of claim 30, wherein the compound is



and X-Y is S-CH<sub>2</sub> or CH<sub>2</sub>-S.

Claim 34 (original): The compound of claim 30, wherein X-Y is S-CH<sub>2</sub>.

Claim 35 (currently amended): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



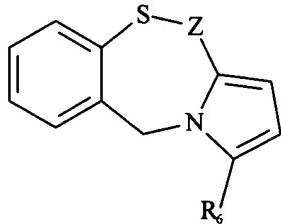
and R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are H, R<sub>4</sub> is OH or H;

W is S or Θ;

R<sub>5</sub> is Ph or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>; and

X-Y is CH<sub>2</sub>-CH<sub>2</sub>.

Claim 36 (original): The compound of claim 30, wherein the compound is



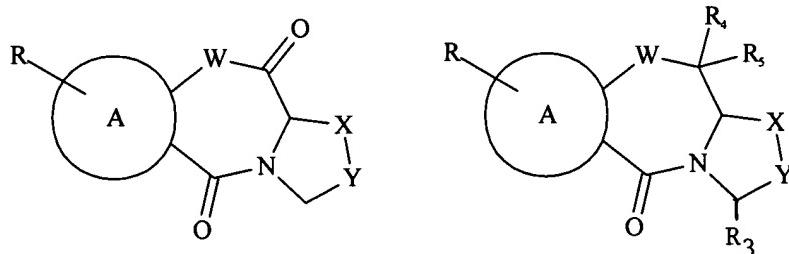
and R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>.

Claim 37 (original): A pharmaceutical composition comprising the compound of claim 29, or the pharmaceutically acceptable salt, and a pharmaceutically acceptable carrier.

Claim 38 (original): A pharmaceutical composition comprising the compound of claim 30, or the pharmaceutically acceptable salt, and a pharmaceutically acceptable carrier.

Claims 39-46 (canceled)

Claim 47 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



wherein A is thiazole, benzene, or naphthalene, pyridine, pyrimidine, pyrazine, or quinoline;

R is one or more of halogen or NO<sub>2</sub>;

X-Y is CH<sub>2</sub>-S, S-CH<sub>2</sub>, CH<sub>2</sub>-O, CH<sub>2</sub>-S(O), S(O)-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>, CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>, or CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>-CH<sub>2</sub>;

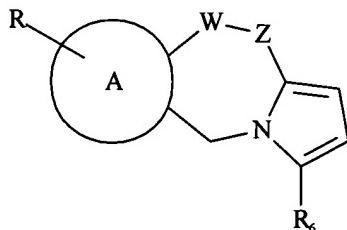
R<sub>3</sub> is H or phenyl;

R<sub>4</sub> is H or hydroxy;

R<sub>5</sub> is H, phenyl, -alkyl-NH<sub>2</sub>, -NH-alkyl, or -N(alkyl)<sub>2</sub>; and

W is S or O

or wherein the compound is



wherein

A is thiazole, benzene, or naphthalene, pyridine, pyrimidine, pyrazine, or quinoline; and

R is one or more of halogen or NO<sub>2</sub>;

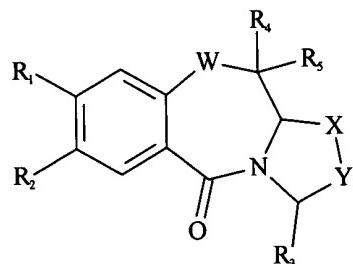
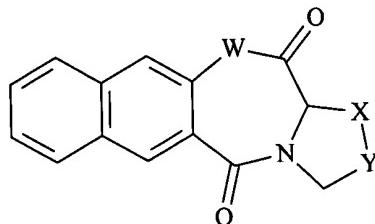
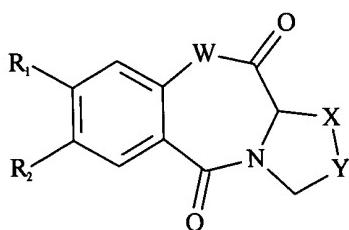
R<sub>6</sub> is H, unsubstituted alkyl or amine, or alkyl or amine substituted with at least one substituent selected from halogen, alkyl, alkoxy, alkylthio, trifluoromethyl, acyloxy, hydroxy, mercapto, carboxy, aryloxy, aryl, arylalkyl, heteroaryl, amino, alkylamino, dialkylamino, morpholino, piperidino, pyrrolidin-1-yl, or piperazin-1-yl;

W is S or O; and

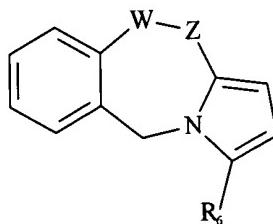
Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>.

Claims 48-54 (canceled)

Claim 55 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



or



wherein

X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, CH<sub>2</sub>-S(O), or CH<sub>2</sub>CH<sub>2</sub>;

Z is S, O, CH<sub>2</sub>, CH<sub>2</sub>CH<sub>2</sub>, or C=O, -CHCO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, -CHC<sub>6</sub>H<sub>4</sub>-pF, or -CHC<sub>6</sub>H<sub>5</sub>;

W is S or O;

R<sub>1</sub> is H, halogen, lower alkyl, lower alkoxy, or NO<sub>2</sub>;

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;

R<sub>3</sub> is H;

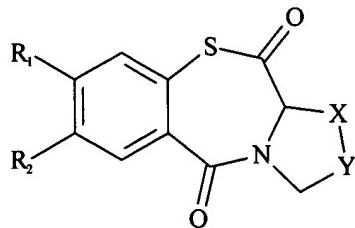
R<sub>4</sub> is hydroxy or H;

R<sub>5</sub> is phenyl or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>; and

R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>,

provided that R<sub>1</sub> and R<sub>2</sub> are not both H or not both alkoxy.

Claim 56 (previously presented): The method of claim 55, wherein the compound is



and R<sub>1</sub> is H or NO<sub>2</sub>;

R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy;

provided that R<sub>1</sub> and R<sub>2</sub> are not both H or not both alkoxy.

Claim 57 (previously presented): The method of claim 55, wherein

R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is S-CH<sub>2</sub>; or

R<sub>1</sub> is H, R<sub>2</sub> is Br, X-Y is S-CH<sub>2</sub>; or

R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is S-CH<sub>2</sub>; or

R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is CH<sub>2</sub>-S; or

R<sub>1</sub> is H, R<sub>2</sub> is Br, X-Y is CH<sub>2</sub>-S; or

R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is CH<sub>2</sub>-S; or

R<sub>1</sub> is NO<sub>2</sub>, R<sub>2</sub> is H, X-Y is CH<sub>2</sub>-S; or

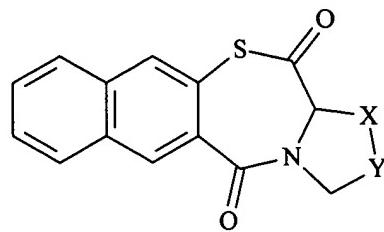
R<sub>1</sub> is H, R<sub>2</sub> is OCH<sub>3</sub>, X-Y is CH<sub>2</sub>-S; or

R<sub>1</sub> is H, R<sub>2</sub> is CH<sub>3</sub>, X-Y is S(O)-CH<sub>2</sub>; or

R<sub>1</sub> is H, R<sub>2</sub> is Cl, X-Y is CH<sub>2</sub>-S(O); or

R<sub>1</sub> is H, R<sub>2</sub> is OCH<sub>3</sub>, X-Y is CH<sub>2</sub>-S(O).

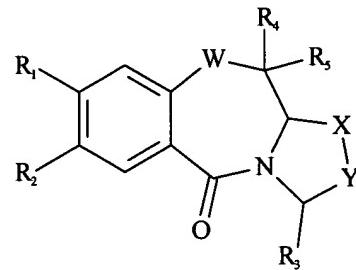
Claim 58 (previously presented): The method of claim 55, wherein the compound is



and X-Y is S-CH<sub>2</sub> or CH<sub>2</sub>-S.

Claim 59 (previously presented): The method of claim 55, wherein X-Y is S-CH<sub>2</sub>.

Claim 60 (currently amended): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



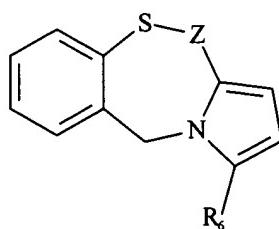
wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> are H, R<sub>4</sub> is OH or H;

W is S or O;

R<sub>5</sub> is Ph or N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>CH<sub>3</sub>; and

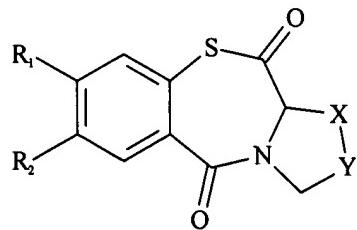
X-Y is CH<sub>2</sub>-CH<sub>2</sub>.

Claim 61 (previously presented): The method of claim 55, wherein the compound is



and R<sub>6</sub> is CH<sub>2</sub>N(CH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>NCH<sub>3</sub>.

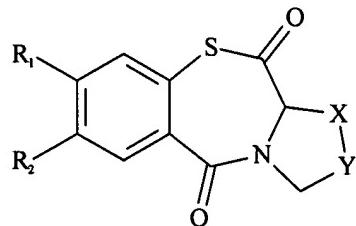
Claim 62 (previously presented): A compound having the following formula, or a pharmaceutically acceptable salt thereof, wherein the compound is:



wherein X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, or CH<sub>2</sub>-S(O);  
R<sub>1</sub> is H or NO<sub>2</sub>; and  
R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy.

Claim 63 (canceled)

Claim 64 (previously presented): A method of treating HIV infection in a subject, comprising administering to the subject a therapeutically effective amount of a compound selected from the group consisting of:



wherein X-Y is S-CH<sub>2</sub>, CH<sub>2</sub>-S, S(O)-CH<sub>2</sub>, or CH<sub>2</sub>-S(O);  
R<sub>1</sub> is H or NO<sub>2</sub>; and  
R<sub>2</sub> is H, halogen, lower alkyl or lower alkoxy.